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CLAIMS

TECHNOLOGY CENTER R3700

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1. An enhanced ventricular assist device (EVAD) for use by physician(s) to take care of a patient with diseased heart, said EVAD comprising one or more ventricular assist device(s), and means for sending electrical pulses to said patient's said diseased heart.
  2. An EVAD according to Claim 1, with means for controlling either or both the pulse rate and voltage of said electrical pulses sent by said means to the said patient's said diseased heart.
  3. An EVAD according to Claim 1 with means for measuring clinical and biological signals at organs on the said patient's body. (CBS) and means for monitoring said CBS.
  4. An EVAD according to Claim 3, with means for monitoring said CBS in synchronization with said electrical pulses.
  5. An EVAD according to Claim 4 with a set of commands and automatic means for carrying out any one of the said set of commands one at a time.
  6. An EVAD according to Claim 5 having a computer with physician modifiable software for automatically selecting a sequence from the said set of commands in response to said CBS and said automatic means for carrying out the said software selected sequence one command at a time, the said response to said CBS being nullified until the said sequence having been done.
  7. An enhanced ventricular assist device (EVAD) for use by physician(s) to take care of a patient with diseased heart, said EVAD comprising one or more linear flow blood pump(s), and means for sending electrical pulses to said patient's said diseased heart.
  8. An EVAD according to Claim 7, with means for controlling either or both the pulse rate and voltage of said electrical pulses sent by said means to the said patient's said diseased heart.
  9. An EVAD according to Claim 7 with means for measuring clinical and biological signals at organs on the said patient's body (LCBS) and means for monitoring said LCBS.
  10. An EVAD according to Claim 9, with means for monitoring said LCBS in synchronization with said electrical pulses.

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11. An EVAD according to Claim 10 with a set of prototype commands and automatic means for carrying out any one of the said set of commands one at a time.
  12. An EVAD according to Claim 11 having a computer with physician modifiable computer software for automatically selecting a sequence from the said set of commands in response to the said LCBS and said automatic means for carrying out the said computer software selected sequence one at a time, the said response to said LCBS being nullified until the said sequence having been done.
  13. An EVAD according to Claim 7, with control means for controlling the blood output pressure and volume of each of the said linear flow blood pump(s) independently.
  14. An EVAD according to Claim 13, in which said control means controls the blood output pressure and volume of each of the said linear flow blood pump(s) by varying the magnitude and frequency of the electrical motor currents of the said linear flow blood pump(s).
  15. An EVAD according to Claim 7, in which magnetic induction means are used for transference of signal, information, and power across the skin without puncturing the skin.
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#### LIST OF REFERENCES

- [1] "Linear Flow Blood Pump" is the subject matter of US patent #6,361,292 B1.
- [2] Texas Instruments DSP Selection Guide May, 2001.